EXECUTIVE SUMMARY

ANNUAL MARIJUANA BUSINESS EACTBOOK

Exclusive market, financial and operational data with emphasis on identifying and understanding trends for cannabis businesses and investors.

SUMMARY INCLUDES:

- Editor's Letter
- Overview & Insights
- 5 Critical Charts & Key Takeaways

7th Edition

Marijuana Daily®
Business Daily®

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Executive Summary

Letter from the Editor



A big round of applause for the marijuana industry: It has successfully navigated childhood and now stands at the doorstep of adolescence.



These words were included in last year's letter from the editor from Chris Walsh, then vice president (now president) of Marijuana Business Daily.

The cannabis industry has since bolted across that proverbial doorstep, emerging as a lanky, acne-ridden teen.

You don't have to stretch too far to make the cannabis industry/teenager metaphor work. The hallmark characteristics of adolescence—rapid, uneven growth; a desire for legitimacy and independence; and uncertainty about what one wants to be when they grow up—all apply. Now occupying the awkward stage in between child and adulthood, the cannabis industry is exhibiting inconsistent signs of maturation.

Consider:

- The highly fragmented marijuana industry is beginning to see major, national players emerge. U.S.-based multistate operators (MSOs)—many of which trade on the Canadian Securities Exchange (CSE)—had a banner year in 2018, accounting for the top five raises for all companies on the CSE. Much of that capital will be deployed throughout 2019 to fund aggressive expansion plans—putting more pressure on small to midsized cannabis businesses with fewer resources.
- After years of inaction, earnest marijuana policy reform discussions at the federal level are finally happening. Bills to address issues such as banking and taxation have found bipartisan support in the U.S. House. It's now a question of when—not if—federal changes around marijuana will happen.
- Investments in the cannabis space from other industries—namely, tobacco and alcohol—reached a fever pitch in 2018. Altria Group—owner of Marlboro maker Philip Morris USA—and liquor giant Constellation Brands each made multibillion-dollar investments in Canadian marijuana producers, while Molson Coors Brewing formed a joint venture with another Canadian firm to develop cannabis-infused beverages. The deals are expected to spur additional investment, mergers and acquisitions across the sector.
- Social equality in the cannabis space has become a much more salient issue among politicians, advocates, regulators and industry stakeholders, forcing policymakers to identify practical solutions to ensure more diversity and fairness when crafting legalization measures or risk failure. Earlier this year, an adult-use legalization bill died in the New York Legislature primarily because of its lackluster approach to social equity, while the cornerstone of a promising rec bill under consideration in Illinois involves boosting minority ownership of cannabis businesses.
- The industry will generate an estimated \$11 billion to \$14 billion in retail sales this year, up from roughly \$2 billion in 2013. But the pace of growth is slowing in some key recreational markets, including Colorado, Oregon and Washington state, and consolidation is materializing in several regions.

The seventh annual Marijuana Business Factbook is also in a transition period of sorts. We're continuing to refine our approach to presenting meaningful, actionable data in an industry defined by its disparate, state-by-state nature and regulations and business conditions vary significantly by market.

This year, we've placed more emphasis on contextualizing the data, bringing in additional outside sources of information to paint a more holistic picture of the key developments and trends impacting each sector of the cannabis industry.

In addition to the industrywide survey that forms the backbone of this report, we've incorporated data from various governmental agencies and utilized data-sharing partnerships with two reputable firms in the industry:

- Cannabis Benchmarks, a division of New Leaf Data Services, which tracks wholesale medical and recreational cannabis prices across the United States.
- Headset, which provides business intelligence and analytics services for marijuana companies.

This report will give you a deeper understanding of these trends and the overall cannabis landscape today, offering business and financial information that can be used to start a cannabis business, grow or improve an existing one, forecast future demand, attract capital, identify investment opportunities in marijuana companies and better understand both the competitive landscape and the industry at large.

We'll also be providing free quarterly updates to key data points in this report, as the constant pace of change in the cannabis space means information that was current just six months ago is already outdated. Patient counts, sales estimates, analysis and coverage of major industry developments will be refreshed to more accurately reflect the rapidly changing marijuana business environment.

MJBizDaily would also like to thank the following organizations for their support in spreading the word about this year's survey: Apeks Supercritical, BioTrackTHC, Canna Angels, Canopy Boulder, Cova Software, Dixie, Flowhub, Fluence Bioengineering, Grasspots, MJardin, Poseidon Asset Management, SIVA Enterprises

If you have any suggestions or want to provide feedback, please contact me at EliM@MJBizDaily.com.

Best Regards,

Eli McVey Research Editor

Insights & Overview

For the professional wanting insight to help beat the competition, the 7th edition of the Annual Marijuana Business Factbook provides you answers. Presented with meaningful, actionable data, the latest edition features all the exclusive financial data, benchmarks, and forecasts business operators have come to expect, and all the legal and regulation updates needed to keep you current. PLUS, we now include quarterly updates as part of your purchase to keep you informed with the latest information through February of 2020. In this edition of the Annual Marijuana Business Factbook you can expect:

CHAPTER 1 - NATIONAL LANDSCAPE

Overview: Summary of the national marijuana business environment, including updated sales estimates, job forecasts, and a revised map of marijuana legalization in the U.S.

Insight: Strong projected growth on the rec side and despite recent patient growth, MMJ sales are expected to slow significantly. With nearly ³/₄ of U.S. population now living in a state with legal marijuana, learn what that means for the national landscape.

CHAPTER 2 - STATE BY STATE ANALYSIS

Overview: 150 pages on state medical and recreational markets.

Insight: Sales, regulations and business opportunities vary widely on a state-by-state basis, get the breakdown of state-level regulations and legislation with 2019 sales estimates for every individual medical and recreational market in the U.S.

CHAPTER 3 - WHOLESALE CULTIVATION

Overview: Data highlighting the significant challenges facing wholesale cultivators.

Insight: Learn why many businesses in this sector are still bullish on their prospects for 2019.

CHAPTER 4 - CANNABIS PRODUCT MANUFACTURERS

Overview: Snapshot of the extremely diverse manufactured cannabis products space.

Insight: Understand how factors such as product diversification and pricing have become increasingly important for cannabis product manufacturers as the competitive environment has intensified.

CHAPTER 5 - RETAILERS

Overview: A look at the key challenges and trends impacting marijuana retailers.

Insight: Learn how the retail cannabis landscape is changing in mature rec markets, where sales growth is slowing, consumer preferences are changing, and larger-scale players are beginning to emerge.

CHAPTER 6 - TESTING LABS AND ANCILLARY BUSINESSES

Overview: Key metrics regarding revenue and profitability for various segments of the ancillary business sector.

Insight: View the data illustrating surging interest in the ancillary cannabis space.

CHAPTER 7 - INVESTORS

Overview: High-level look at the marijuana investment landscape with information investors looking to fund marijuana businesses and marijuana businesses seeking funding.

Insight: See how rising number of U.S.-based marijuana businesses choosing to go public on Canadian markets is impacting where investment dollars are flowing.

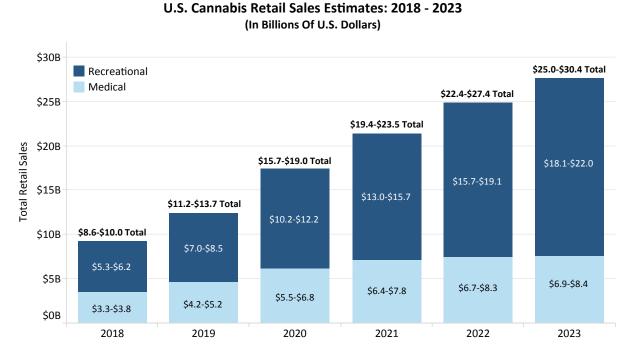
5 Key Charts to Consider in 2019

1. RETAIL CONTINUES TO RISE: US CANNABIS SALES PROJECTIONS THROUGH 2023

Cannabis retail sales are on pace to eclipse \$12 billion by the end of the year, up from an estimated \$9 billion-\$10 billion in 2018. Although recreational sales are expected to lead the way, both segments are projected to increase by roughly 35% this year.

Longer-term projections see annual retail sales in the United States surpassing \$28 billion by 2023. However, as the MMJ market matures, that segment's growth will slow significantly.

CHART: U.S. Cannabis Retail Sales Estimates: 2013 - 2023



Source: 2019 Marijuana Business Factbook

2. THE BIG PICTURE: THE UNDENIABLE IMPACT OF CANNABIS ON THE US ECONOMY

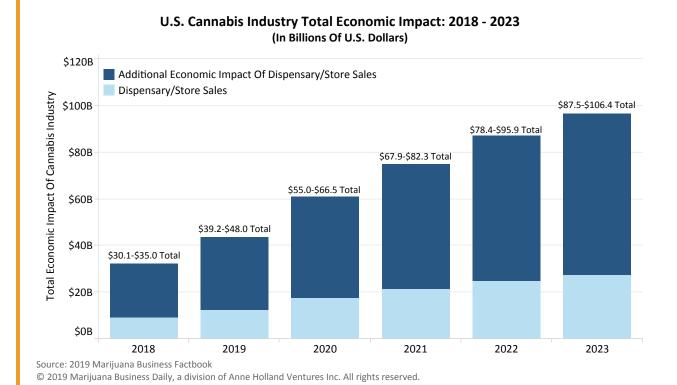
The marijuana industry will deliver an estimated \$39 billion - \$48 billion economic impact on the United States in 2019. By 2023, we see the potential for the industry to surpass \$100 billion in annual economic benefits.

Estimates for economic impact are based on retail marijuana sales and incorporate an impact multiplier of 3.5. That means that for every \$1 consumers spend at dispensaries or rec stores, another \$2.50 in economic benefit will be created in cities, states and the nation.

Factors addressed in this overall economic impact include:

- · The launch of new businesses.
- · Hundreds of millions of dollars in state and local taxes.
- · Real estate investments.
- Visiting tourists spending money to legally consume.
- MJ employees circulating earnings back into the economy through money spent on everything from food to big-ticket items such as housing and transportation.

CHART: U.S. Cannabis Industry Total Economic Impact 2018-2023



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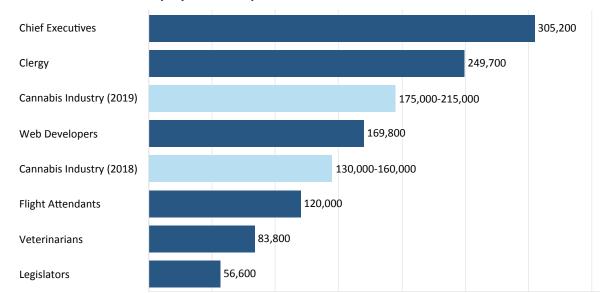
3. CANNABIS EMPLOYEES: COMPARING THE NUMBER OF CANNABIS EMPLOYEES TO OTHER PROFESSIONS.

Currently, the cannabis industry supports roughly 175,000-215,000 employees—an increase of 34% over last year's estimate. The gains are mainly driven by growth in the California market as well as increasing employment needs as new medical and recreational markets continue to develop.

In 2019, cannabis employment surpassed the number of U.S. web developers—another rapidly growing sector—and is approaching the number of individuals working as a member of the clergy.

CHART: Number of Full-Time Workers in The Cannabis Industry: Employment Comparisons to Mainstream Professions

Number Of Full-Time Workers In The Cannabis Industry: Employment Comparisons To Mainstream Professions



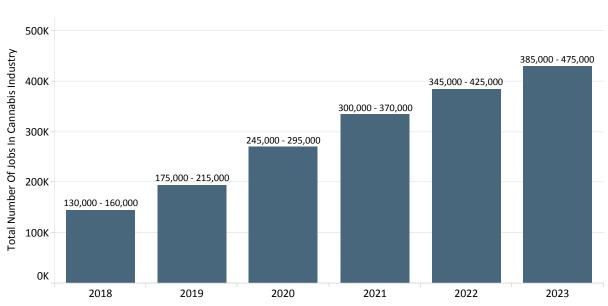
Note: Cannabis industry employment figures calculated using number of full-time equivalent workers that support the marijuana industry. Source: U.S. Bureau Of Labor Statistics Employment Projections: 2016-2026. Projections includes both full- and part-time workers in 2019. © 2019 Marijuana Business Daily, a division of Anne Holland Ventures Inc. All rights reserved.

4. EXPANDING CAREER OPPORTUNITIES: MORE FULL-TIME JOBS THROUGH 2023

Sustained growth continues to fuel rapid job expansion across the cannabis industry. As sales growth continues, especially in the recreational market, the industry is expected to add roughly 235,000 full-time jobs between now and 2023. This represents a compound annual growth rate of 22% and positions the industry to provide 475,000 full-time jobs by the end of 2023.

Even though retail sales are beginning to slow in some mature markets, the launch of lucrative, new medical marijuana markets along with the growing acceptance of legal cannabis will continue to drive job growth upward. By 2023, the cannabis industry could provide the equivalent of 475,000 full-time jobs throughout the United States—or about the same number of active, full-time members of the U.S. Army.

CHART: U.S. Cannabis Industry Full-Time Employment Estimates: 2019-2023



U.S. Cannabis Industry Full-Time Employment Estimates: 2018 - 2023

Note: Cannabis industry employment figures calculated using number of full-time equivalent workers that support the marijuana industry. Source: 2019 Marijuana Business Factbook

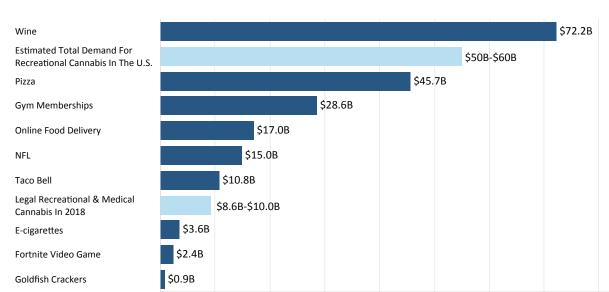
5. IN PERSPECTIVE: CURRENT AND POTENTIAL CANNABIS SALES VS. OTHER GOODS AND INDUSTRIES

As more states legalize adult use and even more consumers are exposed or reintroduced to the product, sales of cannabis are expected to grow extremely rapidly in the coming years.

Sales of legal, recreational and medical cannabis in 2018 clocked in at roughly \$8.6 billion-\$10 billion—approaching the same amount of revenue generated by Taco Bell and more than twice the amount spent on e-cigarettes last year.

Legal sales, however, represent only a fraction of the estimated total demand for recreational cannabis, which we estimate at \$50 billion-\$60 billion.

CHART: Annual U.S. Cannabis Sales Vs. Other Industries & Goods



Annual U.S. Cannabis Sales Vs. Other Industries & Goods

Note: Unless otherwise indicated, all data reported is for 2018.

Source: The Drinks Business, PMQ Pizza Magazine, Finder.com, 2019 Marijuana Business Factbook, Statista, Chicago Tribune, Orange County Business Journal, SuperData, Fast Company

Key Takeaways

1. ADJUSTMENTS COMING: WHOLESALE CULTIVATORS AND MARKET DEMAND

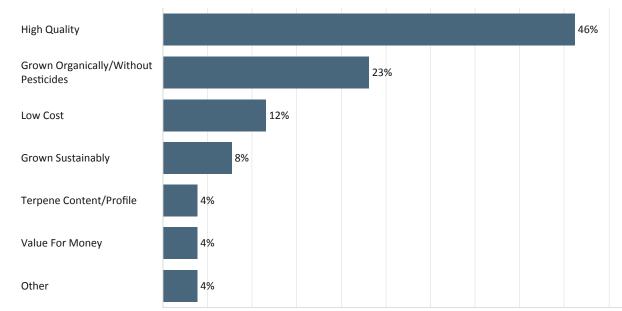
Current competition in the industry favors growers who can supply the extraction market with low-cost cannabis that reliably meets minimum quality standards. With flower sales on the decline, the market will likely not be able to sustain such a large portion of growers attempting to compete on quality.

While the extract market currently favors low-cost flower, demand for high-quality concentrates will absorb more market share in the future. As interest continues to grow, quality will become more of a factor in demand than simply price.

Low-cost and value products will always have a role in the industry. However, as cannabis becomes more and more of a commodity, the value of a company will grow more dependent on brand and product reputation while market segmentation shifts toward value-added production.

CHART: Wholesale Cultivators: What Is The Key Differentiator Of The Cannabis You Grow





Source: 2019 Marijuana Business Factbook

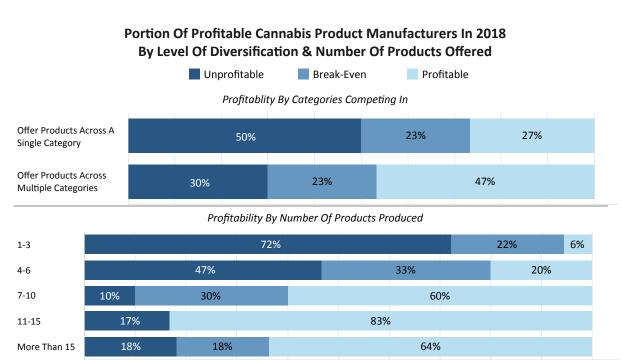
2. VALUE OF DIVERSIFICATION IN CANNABIS PRODUCT MANUFACTURING

In 2018, diversification of product lines was a key to profitability. Cannabis product manufacturers offering goods across multiple categories pulled in higher profits than those focused on a single category.

Diversification also offers manufactured cannabis product businesses a key advantage in the marketplace. Companies can leverage their name in one sector to more easily gain valuable shelf space in another category.

This path does have its limits. For instance, adding more products will not automatically make a mediocre company successful, but successful businesses and brands could improve profitability by investing in expansion.





Source: 2019 Marijuana Business Factbook

3. RETAILERS: PUTTING COMPETITION INTO PERSPECTIVE

The level of competition that marijuana retailers must contend with is high. When compared to the relative densities of other, more ubiquitous U.S. institutions, such as Starbucks and McDonald's, the issues concerning marijuana retailers become clear.

In all cases, the density of marijuana retailers is greater than that of McDonald's. This level of competition increases pressure on retailers to provide customers with a consistently positive experience.

Moving forward, retailers will need to provide consumers a compelling reason to visit and return, such as low prices, exceptional service, quality product selection and convenience.

CHART: Number Of Retail Marijuana Stores Per 100,000 Residents By City: Comparison to Starbucks and McDonald's

Number Of Retail Marijuana Stores Per 100,000 Residents By City: **Comparison With Starbucks & McDonald's** Retail Marijuana Stores Starbucks McDonald's 28.4 25.5 19.7 16.5 15.8 8.8 8.8 7.9 5.8 5.1 3.1 2.2 Portland, Oregon Denver Seattle Anchorage, Alaska

Source: Oregon Liquor Control Commission, Colorado Department of Revenue, Washington Liquor and Cannabis Board, Alaska Alcohol and Marijuana Control Office, Google Maps

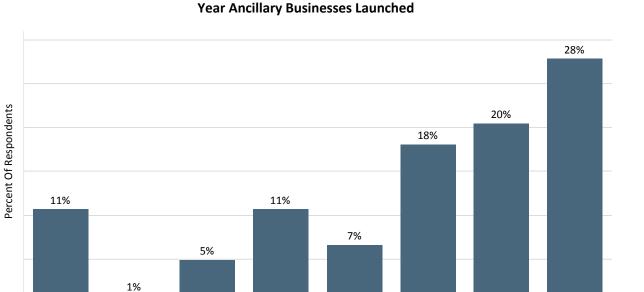
4. ANCILLARY BUSINESSES: MORE OPPORTUNITIES TO JOIN IN

As legalization and acceptance of marijuana sweeps across the country, ancillary companies continue to launch, hoping to get a piece of the pie in the ever-growing industry.

Opportunities for support and service businesses have increased dramatically in the past few years. Two-thirds of businesses in this segment started in just the past three years.

With legalization expected to expand, especially on the recreational side, growth in the number of ancillary businesses is unlikely to slow anytime soon.

CHART: Year Ancillary Businesses Launched



2015

2016

2017

2018

Source: 2019 Marijuana Business Factbook

2012

2011

or earlier

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2013

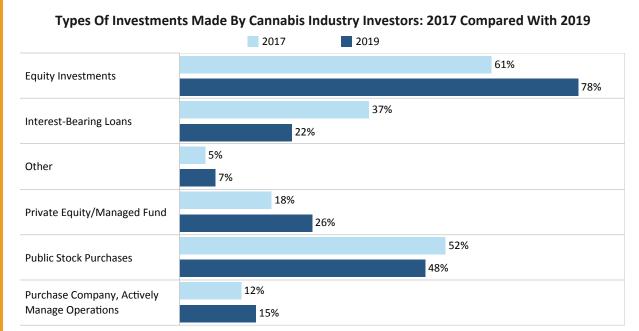
2014

5. INVESTING: SHIFTING INVESTMENTS OF CANNABIS INVESTORS

As the cannabis industry continues to develop, the types of investments being made is shifting. As the perceived risk of investing in the cannabis industry recedes, investors are seeing the upside of equity investment and have less interest in making loans.

Whether it's a move away from loan financing to equity investments or an increase in opportunities to invest in managed funds, high-net-worth individuals and family investment offices have shown a sustained and increasing interest in cannabis investment options.

CHART: Types Of Investments Made By Cannabis Industry Investors: 2017 Compared To 2019



Percent Of Investors

Note: Multiple-choice question; respondent total may be greater than 100%.

Source: 2019 Marijuana Business Factbook

2019 Factbook Table of Contents - Overview

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Chapter 2: State-By-State: Legal Overview, Market Data and Outlook

Chapter 3: Financial and Operational Data: Wholesale Cultivators

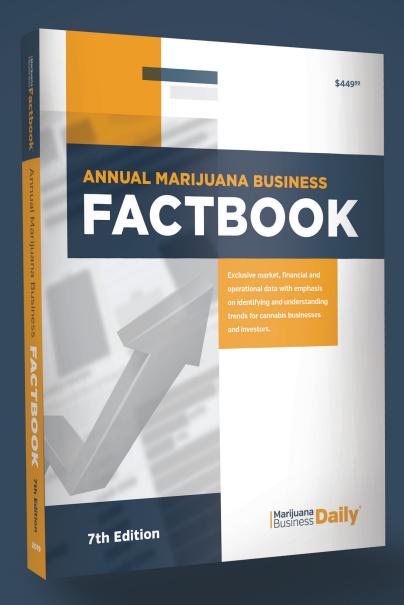
Chapter 4: Financial and Operational Data: Cannabis Product Manufacturers

Chapter 5: Financial & Operational Data: Retailers

Chapter 6: Cannabis Testing Labs & Ancillary Firms

Chapter 7: Cannabis Business Funding & Investing

YOUR COMPETITIVE ADVANTAGE IS HERE



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